

Date: Wednesday, 4/4/2007 9:14:57 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : R44 WEARPLATE  
 Job Number : 31633  
 Estimate Number : 12651  
 P.O. Number :  
 This Issue : 4/4/2007 S.O. No. :  
 Prsht Rev. : NC Part Number : D35651  
 First Issue : 1/1 Type : SMALL /MED FAB Drawing Number : D3565 REV *A B E*  
 Previous Run : 31166 Project Number : N/A  
 Material : A  
 Due Date : 4/20/2007 Qty: 40 Um: Each  
 Written By :  
 Checked & Approved By : *07.04.04*  
 Comment : Est Rev : A New Issue 07-01-16 JLM

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M304S20GA 304/316 040 Sheet



(40)

Comment: Qty.: 0.3759 sf(s)/Unit Total : 15.0360 sf(s)  
 304/316-040 Sheet  
 Batch: *m101873*

*ml 07 06 17*  
*ml 07 04 25*

(40)

2.0 WATER JET FLOW WATER JET



(40)

Comment: FLOW WATER JET  
 1-Cut as per Dwg D3565  
 Dwg Rev: *B*  
 Prog Rev: *B*

*ml 07 06 17*  
*ml 07 04 25*

(40)

2-Deburr if necessary

*ml 07-06-25*

(40)

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



(40)

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0 QC8 SECOND CHECK



(40)

Comment: SECOND CHECK

*En 07/06/18 x (40)*

5.0 BRAKE NC NC BRAKE



Comment: NC BRAKE  
 form 90-000-000 as per Dwg D3565

*E*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: Production engineering NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07.04.26	1	Wrong mat'l thickness on IPP, dwg calls up 0.060", IPP 0.040".	<i>P</i> 07.04.26 per 081042	SCRAP all parts	<i>md</i> 07.06.18	<i>En</i> 07.04.12	<i>P</i> 07.04.26 per 081042	<i>md</i> 07.04.26
07.11.13	7	5 piece crack at the band	<i>P</i> 07.11.13	Scrap & destroy	<i>P</i> 07.11.13	<i>P</i> 07.11.13	<i>P</i> 07.11.13	<i>P</i> 07.11.13
07.11.26	#5.0	Scrap All Parts they DO not conform to the drawing	<i>P</i> 07.11.26	Scrap. Engineering to revise drawing to improve manufacturability. EC to making prototype.	<i>UG</i> 07.11.26 <i>P</i> 07.12.11	<i>P</i> 07.11.26	<i>P</i> 07.11.26	<i>UG</i> 07.11.26

NOTE: Date & initial all entries *to the drawing*

\* Made prototype, delivered to Leanne *EE*

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R44 WEARPLATE

Job Number: 31633

Part Number: D35651

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

7.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Form "Cups" using DT8902 FORMING TOOL.

2-Oen Holes to.257" as per Dwg D3565,after forming.

*Handwritten:* 7/1/13 (35) 80

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

9.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld hard facing as per Dwg D3565 using DT8903 Holding Plate

A/R 2059B Hard Coat rod

Batch: \_\_\_\_\_

10.0

QC5/9

WELD INSPECTION



Comment: WELD INSPECTION

11.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

12.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 4/4/2007 9:14:57 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R44 WEARPLATE

Job Number: 31633

Part Number: D35651

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



LOT 12.11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

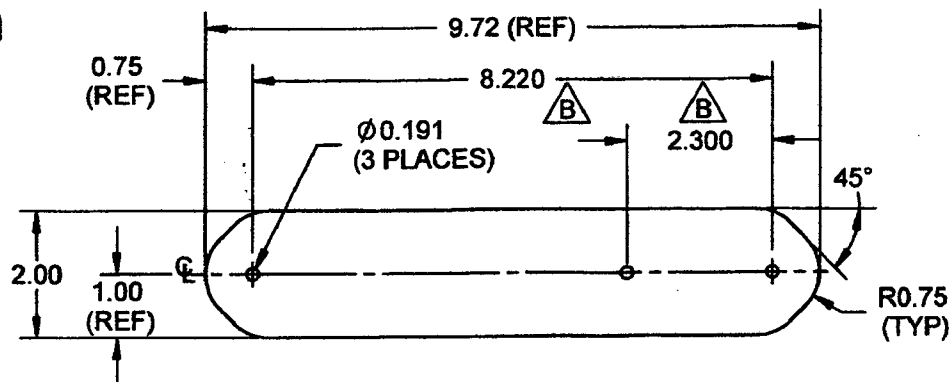
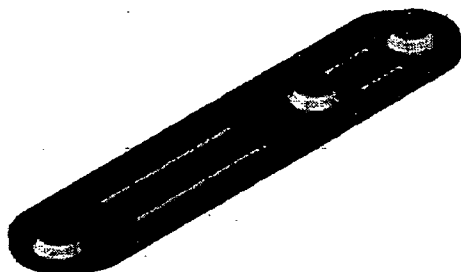
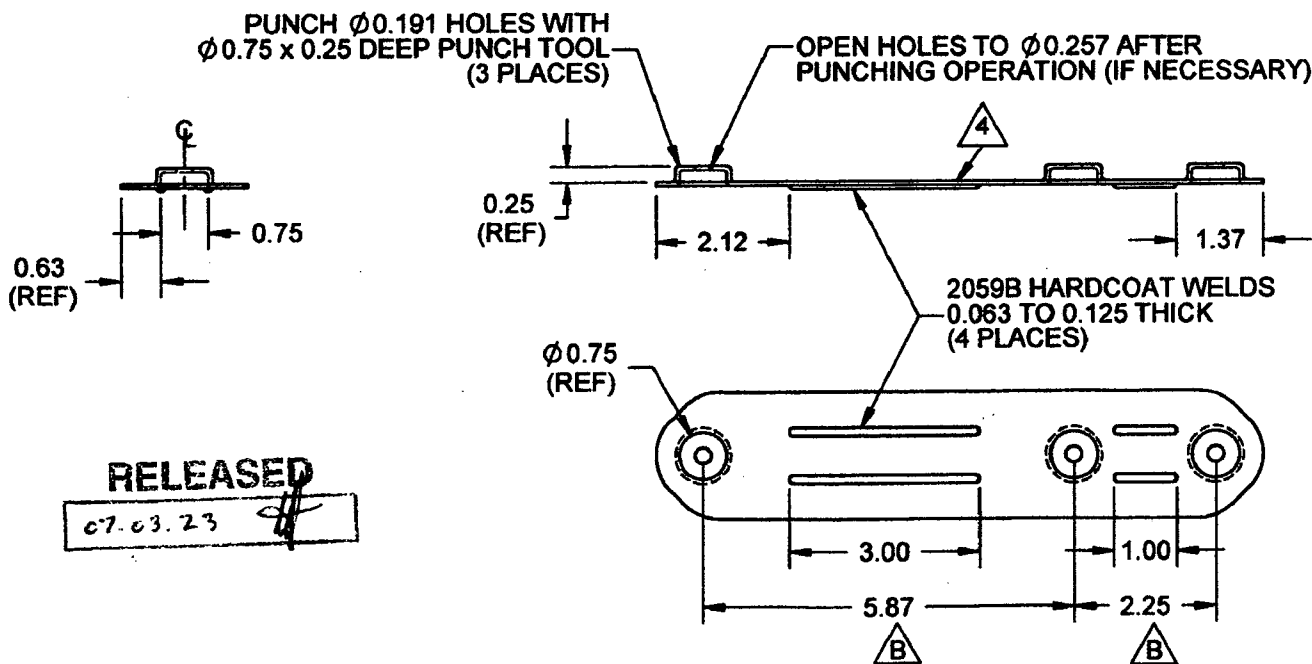
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
	#							

NOTE: Date & initial all entries

**DART**

DESIGN <b>CB</b>	DRAWN BY <b>CB</b>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <b>[Signature]</b>	APPROVED <b>[Signature]</b>	DRAWING NO. <b>D3565</b>	REV. B SHEET 1 OF 1
DATE <b>07.03.12</b>	TITLE <b>R44 WEARPLATE</b>		SCALE 1:3
REV	DATE	DESCRIPTION	
A	07.01.09	NEW ISSUE	
B	07.03.12	8.220 WAS 8.120; 2.300 WAS 2.250; ADD HOLE DIMS AFTER CUP FORMING	

**D3565-1F FLAT PATTERN****D3565-1 R44 WEARPLATE****NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 16 GAUGE (0.063 THICK) (REF DART SPEC M304S16GA)
- 2) FINISH: POWDER COAT "GREY SANDTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) IDENTIFY WITH DART P/N "D3565-1" USING FINE POINT PERMANENT INK MARKER
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX
- 7) WELD PER QSI.004
- 8) PART IS SYMMETRIC ABOUT  $\phi$

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DART AEROSPACE LTD		Work Order: 31633
Description: R44 Waneplate		Part Number: D3565-1
Inspection Dwg: D3565 Rev: B		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A $\varnothing 0.191$	$\pm 0.005 - 0.001$	0.193	✓		vern	
B 9.72	$\pm 0.030$	9.725	✓		vern	
C 8.220	$\pm 0.010$	8.220	✓		vern	
D 2.00	$\pm 0.030$	2.002	✓		vern	
E 2.300	$\pm 0.010$	2.298	✓		vern	
F						
G						
H						
I						
J						
K						
L						
M						
N						
O						
P						
Q						
R						
S						
T						
U						
V						
W						
X						
Y						

Measured by: <i>mm. mm</i>	Audited by:	Prototype Approval:	N/A
Date: 07 04 25	Date:	Date:	N/A
Rev	Date	Change	Revised by
		New Issue	KJ/RF
			Approved



DART AEROSPACE LTD		Work Order: 31633
Description: R44 Wingplate		Part Number: D3565-1
Inspection Dwg: D3565 Rev: B		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A $\phi 0.191$	+0.005-0.001	0.192	✓		VERN	
B 2.00	+/- 0.030	2.003	✓		VERN	
C 1.00	+/- 0.030	1.001	✓		VERN	
D 8.220	+/- 0.010	8.212	✓		vern ✓	
E 9.72	+/- 0.030	9.713	✓		vern	
F 0.75	+/- 0.030	0.74	✓		vern	
G						
H						
I						
J						
K						
L						
M						
N						
O						
P						
Q						
R						
S						
T						
U						
V						
W						
X						
Y						

Measured by: <i>MM. MM</i>	Audited by: <i>Er</i>	Prototype Approval:	N/A
Date: 07/06/17	Date: 07/06/18	Date:	N/A

Rev	Date	Change	Revised by	Approved
		New Issue	KJ/RF	